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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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WENDEROTH LIND & PONACK  
2033 K STREET NW  
SUITE 800  
WASHINGTON, DC 20006

EXAMINER

WEBMAN, EDWARD J

ART UNIT

PAPER NUMBER

1617

DATE MAILED: 06/24/2003

19

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/284578

Applicant(s)

FUKAGAWA

Examiner

WEBMAN

Group Art Unit

1617

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☒ Responsive to communication(s) filed on 3/6/03.
- ☒ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-9, 11, 24, 26, 30, 31 is/are pending in the application.
- ☐ Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-9, 11, 24, 26, 30, 31 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
  - ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
  - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other \_\_\_\_\_

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 11, 24, 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Guire.

Guire teaches a solid surface modified with a linker covalently bound to the surface by photo activation of one linking group, the other linking group being bound to a biocompatible agent (abstract). Antibiotics are specified (column 6, line 16), including penicillin (claim 6). A linker comprising polyoxyethylene is disclosed (column 6, line 26).  
A linkage of a carboxyl group to nitrogen or oxygen is specified (column 7, lines 36-39). Polyolefins are specified as a substrate (column 4, line 33).

Applicants argue but do not claim a chain length greater than 10 monomers. Even if applicants claimed such, Guire teaches longer chains (example 2 column 13, lines 27-28).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 11, 24, 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Patnaik et al '165.

Patnaik et al '165 teach a PTFE backbone bound to a polymeric spacer with amine terminal bonds which is in turn bound to a bioactive molecule (abstract, column 4 lines 54-59). An amide bond is specified column 5 lines 1-5). Antibiotics are specified (column 6, line 29). Polymeric spacers are disclosed (column 5 lines 54-59).

Applicants argue the polymeric spacer differs in structure and molecular size than that claimed. However, applicants claim no structure nor size. Patnaik discloses both (column 5 lines 44, 51-59 for the definition of R<sub>1</sub>).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guire as applied to claims 1-7, 11, 24, 26 above, and further in view of notice under MPEP 2144.03.

Guire is discussed above.

The examiner takes notice under MPEP 2144.03 that both tetracycline and benanomicin contain ~~a~~ hydroxyl groups.

It would have been obvious to one of ordinary skill to attach tetracycline or benanomicin to the polymer of Guire in view of the fact that they both contain hydroxyl groups, which can be reacted with <sup>the</sup> NOS of Guire.

The rejection stands in view of the rebuttal of applicants' argument concerning Guire.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patnaik et al '165.

Patnaik et al '165 is discussed above.

The examiner takes notice under MPEP 2144.03 that penicillin, Lymecycline and benanomicin contain a carboxylic acid group. It would have been obvious to one of ordinary skill to attach penicillin, lymecycline, or benanomicin to the polymer of Patnaik et al, '165 in view of the fact that they contain a carboxylic acid group which can be reacted with the amine terminated spacer of Patnaik et al '165.

The rejection stands in view of the rebuttal of applicants' argument concerning Patnaik et al '165.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 11, 30, 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugo.

Sugo teach graft polymerization of a monomer to a polyolefin base and introducing an antimicrobial group to the grafted chain (abstract). Graft polymerization

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with a gas of a reactive monomer is specified (column 3 lines 24-29). Further reaction with amino acids is disclosed to form an antimicrobial group (column 3 lines 32-48).

Applicants argue that Sugo does not teach the claimed biological compound active moiety having the claimed selective biological activity. However, applicants do not define any limits for either the moiety or the activity. Sugo teaches specific compounds (column 3 lines 43-48), which, when combined with the disclosed grafted polymer chain, create a moiety which is antimicrobial, reading on applicants' broad claim language. The fact that the compound differs from the monomers of the chain belies the argument that the polymer chain itself is antimicrobial.

Alternatively, the process of making a graft chain with a pendant active moiety is not a patentable limitation in a composition claim.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 9, 11, 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Goldberg et al.

Goldberg et al teach a surface graft-polymerized with a monomer wherein a biofunctional agent is chemically bonded. (Abstract) <sup>S</sup> substrates include polyolefins (column 15 line 1). Penicillin and tetracycline are disclosed (column 17 lines 56, 57). As to the claimed process, process steps are not considered patentable during prosecution of product-by-process claims before the PTO.

Applicants argue the claimed process is different, but have not shown that the claimed product is different. Applicants argue that not all the active of Goldberg et al may not be covalently bound. However, applicants don't claim such a limitation. Further, the argument is mere speculation.

No claims allowed.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward J. Webman whose telephone number is 308-4432. The examiner can normally be reached on Monday-Friday 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, S. Padmanabhan can be reached on 305-1877. The fax phone number for the organization where this application or proceeding is assigned is 305-3592.

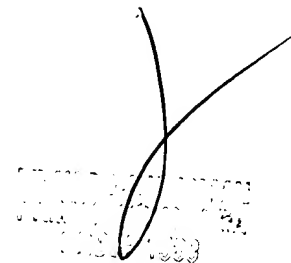
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-1234.

Webman/tgd  
June 3, 2003

A handwritten signature in black ink, consisting of a large, stylized 'X' or 'Y' shape, is written over a faint, rectangular, light-colored stamp. The stamp contains some illegible text, possibly a date or a reference number.